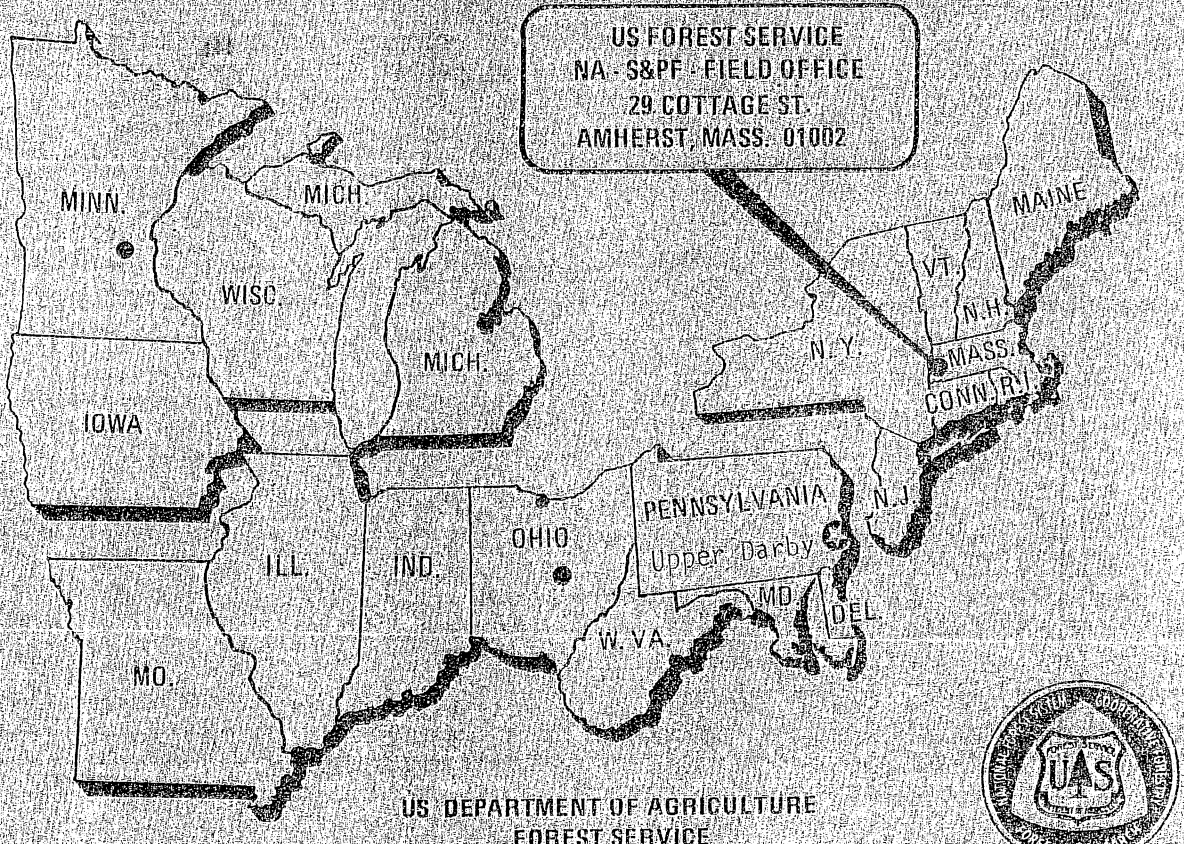
DIVISION OF FOREST PEST CONTROL

Northeastern Area
State & Private Forestry

FOREST INSECT AND DISEASE CONDITIONS
IN NEW ENGLAND, NEW YORK, AND NEW JERSEY
1969



US DEPARTMENT OF AGRICULTURE
FOREST SERVICE

FOREST INSECT AND DISEASE CONDITIONS

IN NEW ENGLAND, NEW YORK, AND NEW JERSEY, 1969

Compiled By

U. S. Department of Agriculture - Forest Service

Northeastern Area, State and Private Forestry

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1/ See appendix for list of contributors

SUMMARY

Gypsy moth, saddled prominent, spruce budworm, and geometrids defoliated thousands of acres of woodland in 1969. Suppression projects are planned in 1970 in some areas to prevent further damage by these insects.

Reports of aphid and scale problems were less numerous in 1969 than in previous years.

Tree mortality in 1970 will probably increase due to insect damage in 1969 being followed by tree diseases notably Armillaria and Nectria.

ARBOR VITAE LEAF MINER - Argyresthia thuiella (Pack.)

Summary: Considerable tree mortality caused by three years of heavy defoliation by this insect throughout Vermont. A heavy infestation continued in Maine.

Trend: Continued high populations and increased tree mortality.

Suppression: Maine pilot tested Malathion against the early larval stages. Application in early August shows promise.

BALSAM GALL MIDGE - Itonida balsamicola (Lint.)

Summary: Of major concern to Christmas tree growers in Maine and New Hampshire.

Trend: Downward.

Suppression: Tests being conducted in Maine.

BALSAM TWIG APHID - Mindarus abietinus Koch.

Summary: Populations at average to low levels in Maine and New Hampshire.

Trend: Downward.

Suppression: Populations too low to warrant suppression.

BALSAM WOOLLY APHID - Chermes piceae Ratz.

Summary: A major problem along the Maine coast. An infestation in Greenville, Me. causing tree mortality. About 7,000 acres infested in Vermont where tree mortality decreased in the north and remained static in the south. New Hampshire populations decreased due to cold weather.

Trend: Generally static.

Suppression: None.

BEECH BARK DISEASE - Cryptococcus fagi (Baer.)

Summary: The killing front in Vermont is moving north. Mortality of beech heavy in the southern and central parts of Vermont where losses amount to 15 million board feet a year.

Trend: Static in New Hampshire and increasing in Vermont, Massachusetts, and New York.

Suppression: None. Salvage of timber is falling behind tree mortality.

BIRCH CASEBEARER - Coleophora fuscedinella (Zell.)

Summary: The expected outbreak did not occur in eastern Maine.

Trend: Static at low levels.

Suppression: None.

BIRCH LEAF MINER - Fenusa pusilla (Lep.)

Summary: Light populations in scattered stands of grey birch in Vermont. Of concern to woodland owners in New York.

Trend: Downward.

Suppression: New York treated 445 acres with carbaryl, double application.

BUD MINING SAWFLY - Pleroneura borealis Felt

Summary: Reported from New Hampshire where 60% of the fir in a two-acre plantation was attacked.

Trend: Static at high levels in New Hampshire.

Suppression: None.

CANKERWORMS - Geometridae

Summary: Bruce's spanworm, Operophtera bruceata (Hulst) reported in moderate numbers in Maine. Maine (1,700 acres), New Jersey (100,675 acres), and Vermont (14,369 acres) had outbreaks of the fall cankerworm, Alsophila pometaria (Harr.) which was usually associated with the spring cankerworm, Paleacrita vernata (Peck). The elm spanworm, Ennomos subsignorius (Hbn.) and Phigalia titea (Cram.) defoliated 970 acres in Connecticut. The linden looper, Erannis tilaria (Harr.) infestation went into its second year in a sugar maple stand in northern Vermont, and remained a chief component of the looper complex in New Jersey. The hemlock looper, Lambdina fiscellaria fiscellaria (Guen.) was reported in New Hampshire.

Trend: Infestations remain at high levels in Maine. Populations in Vermont are declining or are expected to collapse. New Jersey populations show a downward trend, but there are local variations. Looper problems in Connecticut appear to be increasing. The hemlock looper is at endemic levels in New Hampshire.

Suppression: Carbaryl gave excellent control on 30 acres in Vermont, and 96% control on 9,500 acres in New Jersey. No suppression is planned in Maine. New Jersey plans to treat about 39,000 acres in 1970.

ELM FLEA BEETLE - Altica ulmi Woods

Summary: The insect caused browning of elm leaves in central and southern Maine.

Trend: Static, remains only a few seasons at high levels in a locale.

Suppression: None.

EUROPEAN PINE SAWFLY - Neodiprion sertifer (Geoff.)

Summary: Surveys conducted in New Jersey on 555 acres indicate light to moderate infestations in red pine and Scots pine plantations.

Trend: Static at low levels.

Suppression: None. Northeastern Forest Experiment Station is working on a virus application method.

FALL WEBWORM - Hyphantria cunea (Drury)

Summary: Reported in central and southern Maine, but of little concern except in the Belgrade Lakes region.

Trend: Static at low levels.

Suppression: None.

FOREST TENT CATERPILLAR - Malacosoma disstria Hbn.

Summary: Maine caught normal numbers of moths in light traps. No defoliation by this insect in Vermont.

Trend: Expected increase in Vermont did not occur. Last outbreak 14 years ago.

Suppression: None. Natural controls have held populations at low levels.

GYPSY MOTH - Porthetria dispar (L.)

Summary: A general outbreak occurred throughout the area. Connecticut, 50,000 acres; Maine, 125 acres; Massachusetts, 12,000 acres; New Hampshire, 17,160 acres; New Jersey, 38,190 acres; New York, over 57,652 acres; and Vermont, no significant defoliation.

Trend: Upward, especially high population increases expected in New Jersey.

Suppression: Most suppression work confined to high value recreation areas. Carbaryl at 1 pound/acre technical material is the accepted treatment. Two gallons of water per acre have been used for better spray distribution on small areas. New York treated 57,652 acres including some trials with ULV, LV, and oil formulations of carbaryl. Connecticut treated 14,190 acres. New Jersey used helicopters to treat 600 acres, with 96% control. Projects are planned for New Hampshire, New York, New Jersey, and Connecticut in 1970.

IMPORTED WILLOW LEAF BEETLE - Plagiodera versicolora (Leich.)

Summary: Common in Maine at low population levels.

Trend: Static at low levels.

Suppression: None

LARCH CASEBEARER - Coleophora laricella (Hbn.)

Summary: Reported in New York at locally high levels.

Trend: Upward, only slight increases expected.

Suppression: New York treated 70 acres.

LEAF TIERS AND ROLLERS - Croesia semipurpurana (Kear.) and Archips spp.

Summary: This complex defoliated 364,085 acres in New Jersey. Associated with canker-worms.

Trend: Downward at slow rate.

Suppression: New Jersey treated 9,510 acres with carbaryl. Some of this area included cankerworms. New Jersey plans suppression on about 39,000 acres in 1970.

MAPLE BARK SCALE - Cryptococcus williamsi K. & H.

Summary: Surveys for this insect were conducted in Vermont and on the White Mountain National Forest. Current knowledge on this insect was discussed at a workshop in Vermont. Reports are available from the Amherst Field Office.

Trend: Decreased to low levels in southern Vermont, but remained static at moderate levels in northern Vermont.

Suppression: None.

MAPLE LEAF CUTTER - Paraclemensia acerifoliella (Fitch)

Summary: The insect heavily defoliated 70 acres in northern Vermont. Many reports of light populations in western Massachusetts and throughout Vermont.

Trend: Upward. Has been at very low levels since a heavy outbreak in 1958.

Suppression: None.

MAPLE TRUMPET SKELETONIZER - Epinotia aceriella (Clem.)

Summary: Widespread throughout the area, particularly New Hampshire, Vermont, and Massachusetts. Defoliation, late in the summer, was not significant.

Trend: Upward, not a serious problem.

Suppression: None.

NANTUCKET PINE TIP MOTH - Rhyacionia frustrana (Com.)

Summary: High populations reported on Cape Cod, Massachusetts and at Ft. Dix, New Jersey where 95% of loblolly tip were infested.

Trend: Static at high levels.

Suppression: Plans are to test Dimethoate at Ft. Dix to determine its value in releasing loblolly pine from tip moth attack for increased juvenile growth.

OAK LEAF MINER - Profenusa alumna

Summary: Oaks near Sebago Lake and Rumford, Maine sustained high populations. The infestation at Canton, Maine collapsed.

Trend: Upward.

Suppression: None.

OAK LEAF SKELETONIZER - Bucculatrix ainsliella Murt.

Summary: Populations increased in many localities in Connecticut, Massachusetts, New Jersey, and New York. There was no significant damage reported.

Trend: Upward.

Suppression: None.

ORANGE STRIPED OAKWORM - Anisota senatoria (A. & S.)

Summary: Light infestations were reported in 18 towns in eastern Connecticut.

Trend: Unknown.

Suppression: None.

OYSTER SHELL SCALE - Lepidosaphes ulmi (L.)

Summary: Some tree mortality and branch kill of beech in Rutland and Franklin Counties, Vermont.

Trend: Upward with corresponding increase in damage.

Suppression: None.

PITCH PINE NEEDLE MINER - Exotelia pinifoliella (Chambers)

Summary: Large areas in Maine and 2,000 acres in New Hampshire were attacked in 1969.

Trend: Downward. Intensity of attack was much lower this year.

Suppression: None

RED-HEADED PINE SAWFLY - Neodiprion lecontei (Middler)

Summary: There was little defoliation and few infestations reported in Vermont.

Trend: Declined sharply.

Suppression: None reported.

RED PINE SCALE - Matsucoccus resinosae B. & G.

Summary: A survey made in New Jersey on 502 acres of plantations and on 1,230 ornamental pine revealed no scale infestations.

Trend: Stable at negative levels. Third consecutive year that survey results in New Jersey were negative.

Suppression: None.

RUSTY TUSSOCK MOTH - Notolophus antiqua (L.)

Summary: Woodcutters in Maine suffered from skin rash while working in a spruce-fir stand infested by this insect. Reared cocoons were 24% parasitised.

Trend: Unknown.

Suppression: None.

SADDLED PROMINENT - Heterocampa guttivita (Walker)

Summary: This defoliator was a major pest in 1969. Damage occurred on 953,575 acres in New York; 31,500 acres in southwestern Vermont; 100,000 acres in western Massachusetts; and 32,600 acres in New Hampshire. There was a noticeable increase in light trap catches in Maine. Pupal survey methods are being tested.

Trend: Upward, but local collapse expected where the insect has been at outbreak levels for three years.

Suppression: New York treated 13,794 acres with one pound carbaryl per acre in water. Natural controls notably Calosoma beetles, stink bugs, mammals, and larval disease are common in most infestations. Chemical sprays will be used in New York in 1970 while natural controls will be depended upon in New Hampshire, Vermont, and Massachusetts.

SATIN MOTH - Stilpnotia salicis L.

Summary: Most light traps in Maine caught at least small numbers of this insect.

Trend: Static at moderate levels.

Suppression: None.

SPITTLEBUGS - Aphrophora parallela (Say) and A. saratogensis (Fitch)

Summary: Branch mortality occurred on Scots pine in southeastern New Hampshire. Maine reported light infestations. Both species were common in Vermont.

Trend: Declining.

Suppression: In a New Hampshire test, methoxychlor was applied in June to kill nymphs. Evaluation of the application will be done later.

SPRUCE BUDWORM - Choristoneura fumiferana (Clem.)

Summary: In Aroostook County, Maine, tree mortality is increasing where the insect has defoliated about 200,000 acres. Egg mass surveys show 1.533 per 15-inch branch tip compared to 0.784 last year. Heavy populations have 1.36 egg masses per branch tip.

Trend: Upward. Widespread tree mortality is expected in 1970.

Suppression: New York sprayed 288 acres with Sevin-4-oil, ULV. Maine plans to treat 200,000+ acres in 1970 with Fenithrothion.

SPRUCE GALL APHIDS - Chermes spp.

Summary: Common on Christmas tree plantations in New Hampshire.

Trend: Static.

Suppression: Owners had erratic results with lindane or malathion.

WHITE PINE WEEVIL - Pissodes strobi (Peck)

Summary: In Vermont the weevil spread to blue spruce, Scots pine, red pine, white spruce, and red spruce. The insect infested 37% of the white spruce in a New Hampshire plantation; but there were no major infestations on red, Scots, or mugho pine.

Trend: Upward.

Suppression: New York treated 35 acres, Vermont treated 40 acres. Lindane was used in both cases. Maine tried metasystox (R) as an experiment, and plans further tests in 1970.

WILLOW FLEA WEEVIL - Rhynchaenus rufipes (LeC.)

Summary: Responsible for the browning of willow leaves in Maine.

Trend: Unknown.

Suppression: None.

YELLOW-HEADED SPRUCE SAWFLY - Pikonema alaskensis (Roh.)

Summary: Light populations were common in northern New Hampshire. No serious defoliation was reported.

Trend: Static at low levels.

Suppression: None.

DISEASES

ANNOSUS ROOT ROT - Fomes annosus (Fr.) Cke.

Summary: Localized severe mortality in New York, Connecticut, and Rhode Island. Light mortality in other states. Rhode Island red pine stands suffering very heavy tree kill.

Trend: Increasing as more plantations are being thinned.

ANTHRACNOSE - Gnomonia sp.

Summary: Sycamore and oak in Connecticut, Massachusetts, and Vermont were not damaged as much as in previous years.

Trend: Declining.

CEDAR APPLE RUST - Gymnosporangium juniperi-virginianae Schw.

Summary: Common on cedar in New York and central Massachusetts. No damage.

Trend: Unknown.

CYTOSPORA CANKERS - Cytospora sp.

Summary: Many spruce have been infected by this pathogen in New York, Vermont, and Maine. Some mortality has occurred on Norway spruce.

Trend: Unknown.

DUTCH ELM DISEASE - Ceratocystis ulmi (Buism.) C. Moreau

Summary: All states report a large increase in the number of dead elms. Some historic trees in New York have been killed.

Trend: Increasing.

DWARF MISTLETOE - Arceuthobium pusillum Pk

Summary: Still a problem on white spruce and balsam fir on the Maine coast. New York reports dwarf mistletoe heavy on about 100 acres of spruce in Plattsburgh; many trees are dying.

Trend: Unknown.

HEMLOCK CONE RUST - Melampsora abietis-canadensis Ludw. ex Arth

Summary: This rust destroyed about 25% of the hemlock cone crop on the Pachaug State Forest, Connecticut.

Trend: Unknown.

SCLERODERRIS CANKER - Scleroderris lagerbergii Gremmen

Summary: Scleroderris is restricted to an area near Paul Smiths College in New York. Mortality is very light.

Trend: Unknown.

SHOESTRING ROOT ROT - Armillaria mellea (Vahl). Quel.

Summary: Killed scattered red spruce in Maine. Several tree species in New York are being killed usually following insect defoliation. Oak mortality in New Jersey is severe following insect defoliation.

Trend: Increasing due to widespread insect defoliation.

WESTERN GALL RUST - Peridermium harknessii Moore

Summary: Causing light mortality of Scots pine in New York. Present on Scots pine in Vermont and Maine.

Trend: Increasing - more Scots pine Christmas tree plantings are being established.

WHITE PINE BLISTER RUST - Cronartium ribicola Fischer

July 1, 1968 - June 30, 1969

Acres Surveyed:.....679,956

Acres Worked:..... 13,314

Ribes Destroyed:.....430,945

Trees Treated:..... 85,312

Acres to Maintenance:.. 15,532

WHITE PINE TERMINAL BUD DORMANCY

Summary: This problem was common in New York and Vermont. The terminal bud fails to develop resulting in a cabbage pine.

Trend: Unknown.

MISCELLANEOUS

AIR POLLUTION

Summary: White pines in all states were injured in varying degrees. Most injury resembles SO_2 damage. Several states report SNB outbreaks.

Trend: Increasing.

FOLIAGE DISEASES

Summary: Increased in all states due to wet summer.

Trend: Unknown.

FROST DAMAGE

Summary: Oaks in New York and northern New Hampshire were defoliated by late frosts.

Trend: Unknown.

RODENTS - Mice, squirrels, porcupine

Summary: Mouse damage has increased markedly in the past year. Most damage occurs in young conifer plantings. Porcupine damage in Vermont is declining.

Trend: Increasing.

WINTER DRYING

Summary: High elevation spruce in New York, Vermont, New Hampshire, and Maine were injured in March and April. No mortality resulted.

Trend: Unknown.

APPENDIX

List of Contributors

Forest Pest Notes, No. 2, November 1969	Maine
Summary of Forest Insect Conditions, Vermont, 1969 by E. Bradford Walker	Vermont
Review of Forest Insect and Disease Conditions in New Hampshire During 1969 by Alfred C. Avery	New Hampshire
Woodland Insect Report, 1969 by George W. Schuessler	Connecticut
A Report on the Forest Pest Conditions in New Jersey, 1968-1969 by John D. Kegg	New Jersey
Spray Report, 1969, Bureau of Forest Insect and Disease Control by W. E. Masterson and J. J. Homiak	New York
Massachusetts Insect Conditions, 1969 by C. S. Hood	Massachusetts